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Attorney Docket No. NMTI 1002-4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: ) Group Art Unit: *Unassigned*  
CHRISTOPHE PIERRAT et al. )  
Application No. *Unassigned* ) Examiner: *Unassigned* .  
Filed: Herewith )  
For: **Exposure Control for Phase Shifting** )  
    **Photolithographic Masks** )

**POWER OF ATTORNEY BY ASSIGNEE TO EXCLUSION OF INVENTOR  
UNDER 37 C.F.R. § 3.71 WITH REVOCATION OF PRIOR POWERS**

Commissioner of Patents  
Washington, D.C. 20231

Sir:

The undersigned ASSIGNEE of the entire interest in the above-identified application for letters patent hereby appoints:

Mark A. Haynes	- Reg. No. 30,846
Ernest J. Beffel, Jr.	- Reg. No. 43,489
Kent R. Richardson	- Reg. No. 39,443
Warren S. Wolfeld	- Reg. No. 31,454
James F. Hann	- Reg. No. 29,719
Bill Kennedy	- Reg. No. 33,407
Erik L. Oliver	- Reg. No. 46,296

to prosecute this application and transact all business in the United States Patent and Trademark Office in connection therewith and hereby revokes all prior powers of attorney; said appointment to be to the exclusion of the inventors and the inventors' attorneys in accordance with the provisions of 37 C.F.R. § 3.71.

The following evidentiary documents establish a chain of title from the original owner to the Assignee:

a copy of an Assignment attached hereto, which Assignment has been (or is herewith) forwarded to the Patent and Trademark Office for recording; or

the Assignment recorded on \_\_\_\_\_ at reel \_\_\_\_\_, frames \_\_\_\_\_.

Pursuant to 37 C.F.R. § 3.73(b) the undersigned Assignee hereby states that evidentiary documents have been reviewed and hereby certifies that, to the best of ASSIGNEE's knowledge and belief, title is in the identified ASSIGNEE.

Direct all telephone calls to Mark A. Haynes, Esq., at (650) 712-0340.

Address all correspondence to:

**Customer Number 30437**

Mark A. Haynes, Esq.  
HAYNES BEFFEL & WOLFELD LLP  
P.O. Box 366  
Half Moon Bay, CA 94019  
(650) 712-0340 (phone)  
(650) 712-0263 (fax)

ASSIGNEE: NUMERICAL TECHNOLOGIES, INC.

Signature: 

Name: Erik L. Oliver

Title: Director of Intellectual Property

Date: 10/4/2001

OCOPY

JOINT TO CORPORATE  
ASSIGNMENT

WHEREAS, the undersigned,

(1) Christophe Pierrat  
420 Riverside Court, #307  
Santa Clara, CA 95054

(2) Michel Luc Côté  
3800 Rue Mirassou  
San Jose, CA 95148

3327 Provence Ct.  
San Jose, CA 95135

hereinafter termed "Inventors", have invented certain new and useful improvements in

**EXPOSURE CONTROL FOR PHASE SHIFTING PHOTOLITHOGRAPHIC  
MASKS**

and have filed an application for a United States patent disclosing and identifying the above invention on \_\_\_\_\_ as Application No. \_\_\_\_\_, OR are filing such an application herewith, and have executed an oath or declaration of inventorship for such application on:

(1) the 4<sup>th</sup> day of October, 2001;  
(2) the 4 day of October, 2001;

(hereinafter termed "application"); and

WHEREAS, Numerical Technologies, Inc., a corporation of Delaware, having a place of business at 70 W. Plumeria Drive, San Jose, CA 95134 (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventors to have been received in full from said Assignee:

1. Said Inventors do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other

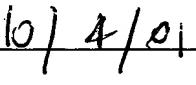
assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the dates written below.

  
Christophe Pierrat

  
Date

State of )

)

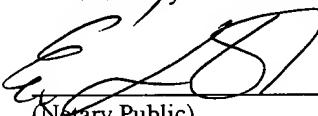
County of )

)

On 4 Oct, 2001, before me, Erik L. Oliver, Notary Public  
personally appeared Christophe Pierrat,

personally known to me or  proved to me on the basis of  
satisfactory evidence, to be the person whose name is subscribed  
to the within instrument and acknowledged to me that he/she  
executed the same in his/her authorized capacity, and that by  
his/her signature on the instrument the person or the entity upon  
behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

  
(Notary Public)



~~Michel Luc Côté~~

Date

Oct 4' 2001

State of \_\_\_\_\_  
County of \_\_\_\_\_

On 4 Oct, 2001, before me, Erik L. Oliver, Notary Public  
personally appeared Michel Luc Côté,

X personally known to me or proved to me on the basis of satisfactory evidence, to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

WITNESS my hand and official



E. J. B. S.  
E. J. B. SMITH

